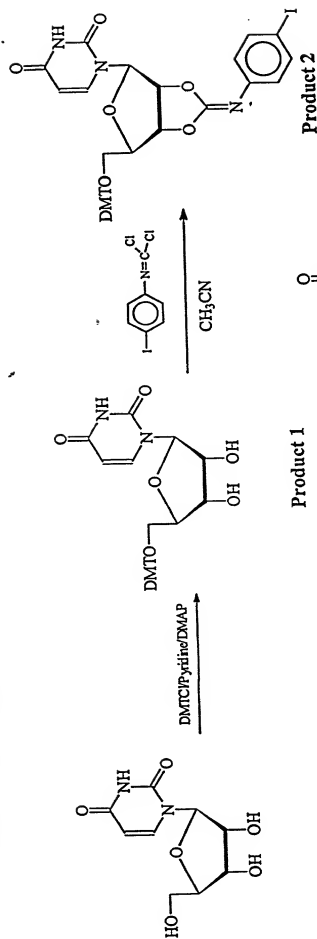


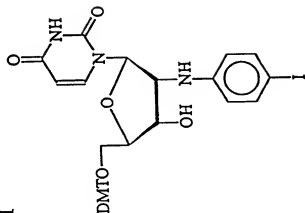


Compound # 8

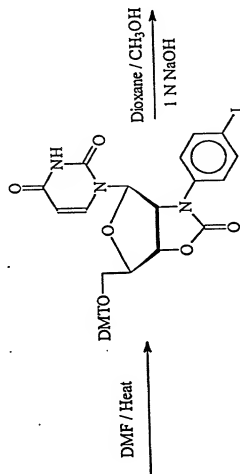
Synthesis Scheme of 2'-Arylamino-2'-Deoxy-Uridine



Product 1



Product 4



Product 3

FIGURE 2

FIGURE 3

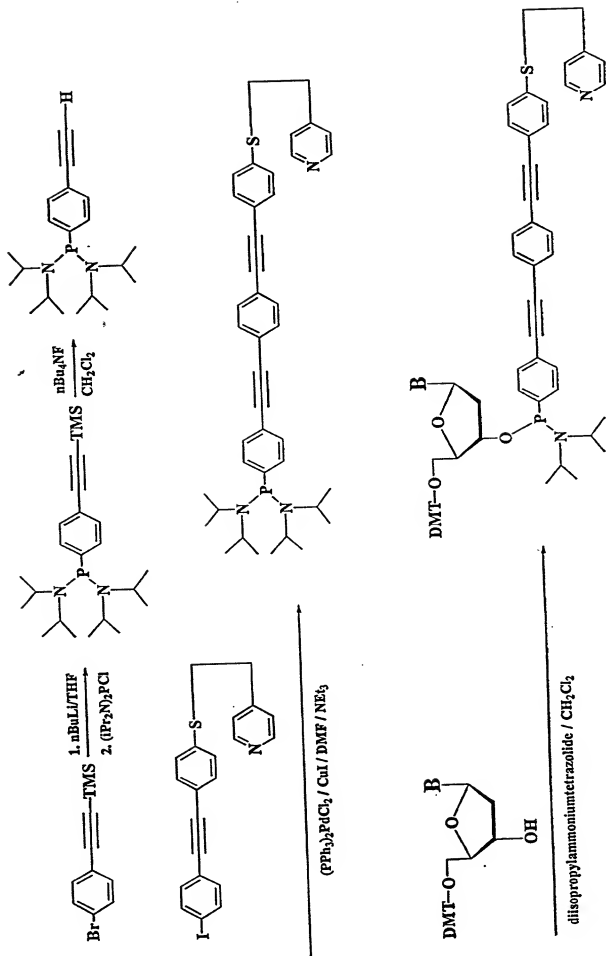
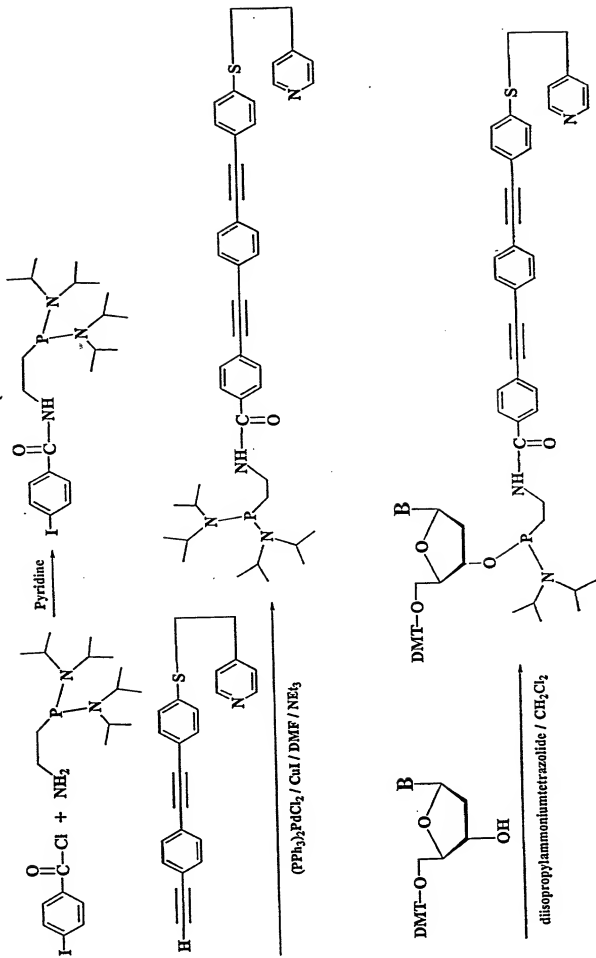


FIGURE 4

FIGURE 5



Synthesis Scheme of Substituted Three-Unit Wire

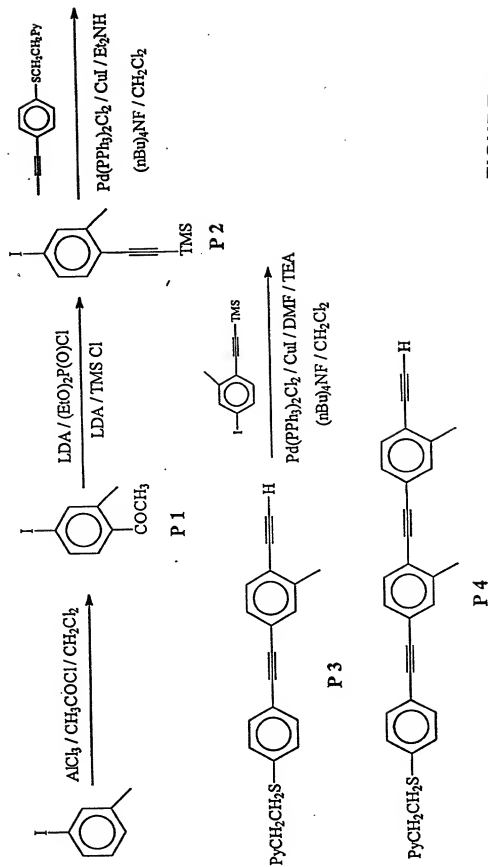


FIGURE 6

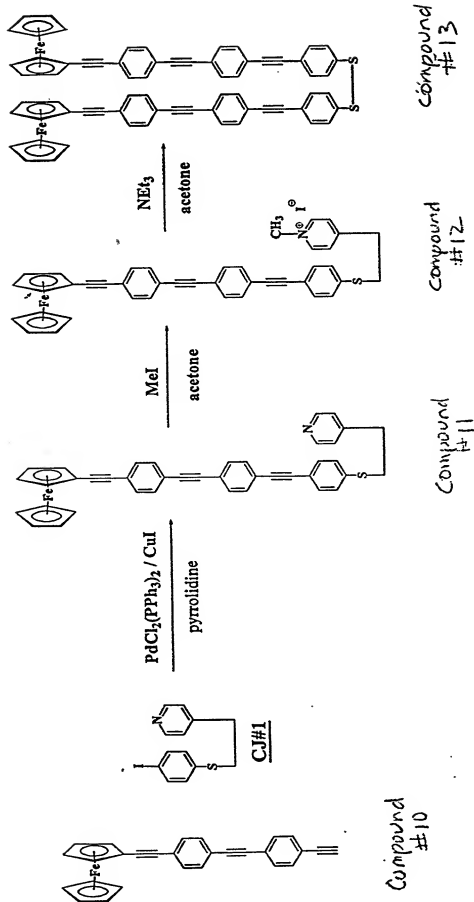
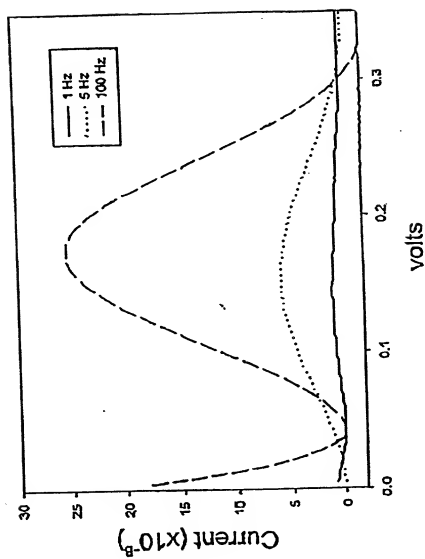


FIGURE 7

FIGURE 8



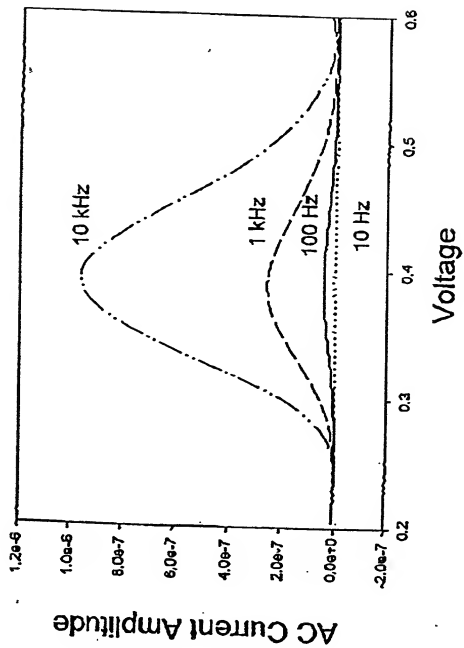


FIGURE 9A

Double and Single Stranded DNA

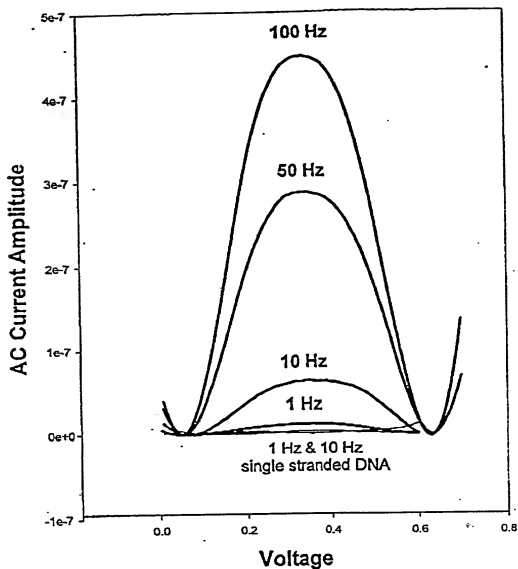


FIGURE 9B

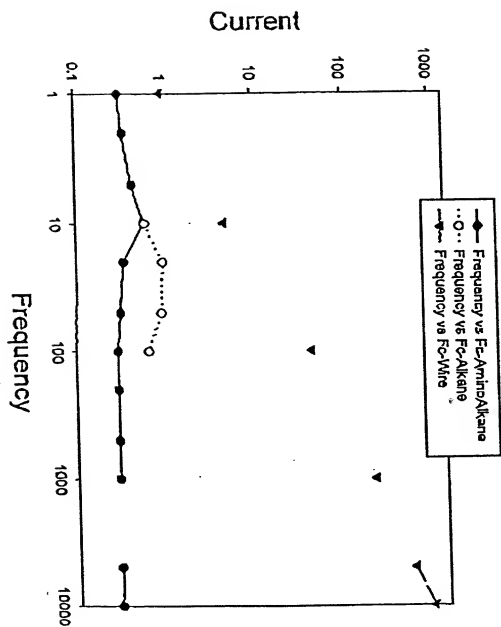


FIGURE 10

DNA and RC circuits

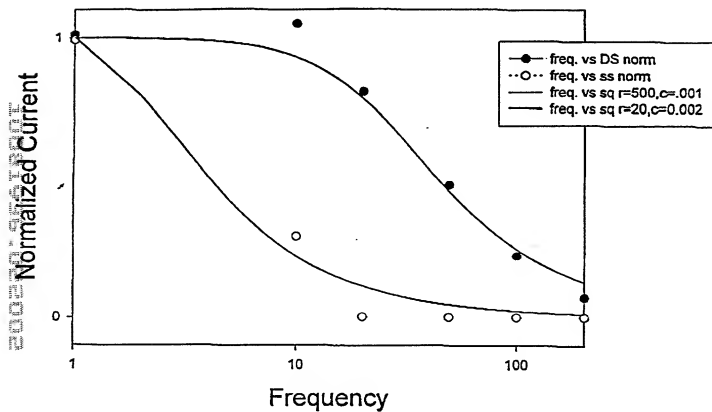


FIGURE 11

1 kHz ACV

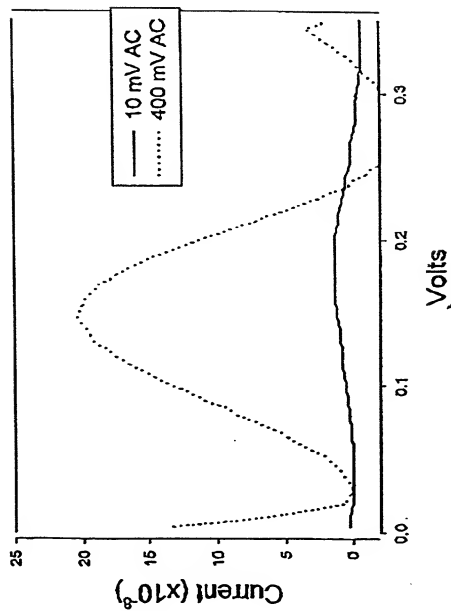


FIGURE 12

Fc alkane at 25 mV overpotential

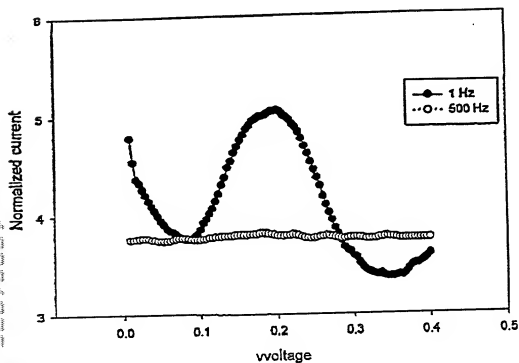


FIGURE 13A

Fc alkane, 1 Hz at 25 mV overpotential
500 Hz at 200 mV overpotential

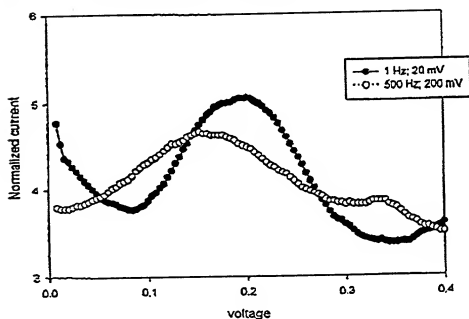


FIGURE 13B

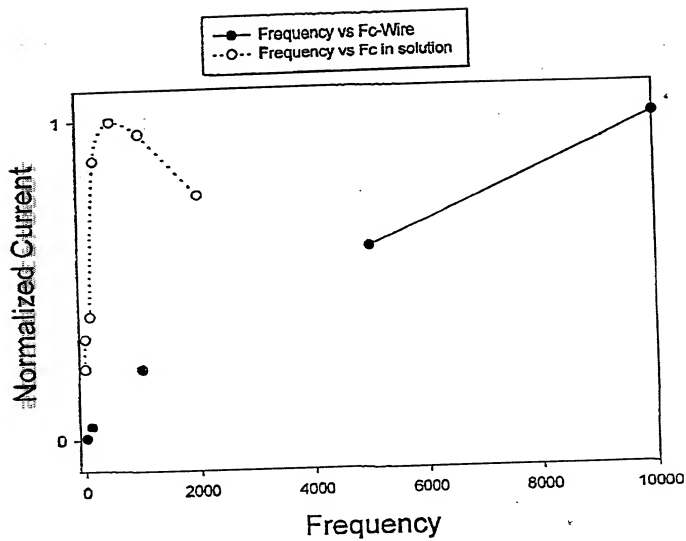


FIGURE 14

200223-260000

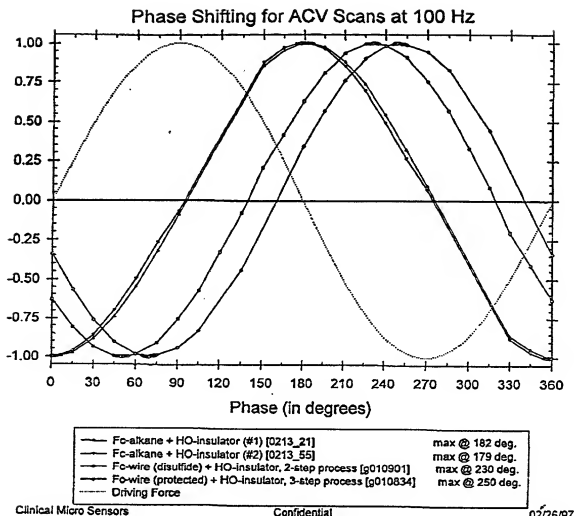


FIGURE 15A

ACV Phase Diagram at 50Hz
For 121803d (DS) and 021007a2 (SS)

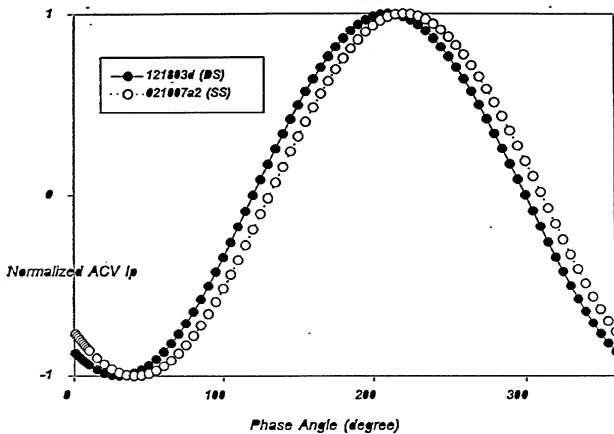


FIGURE 15B

Synthesis Scheme of the Benzylamino-Uridine

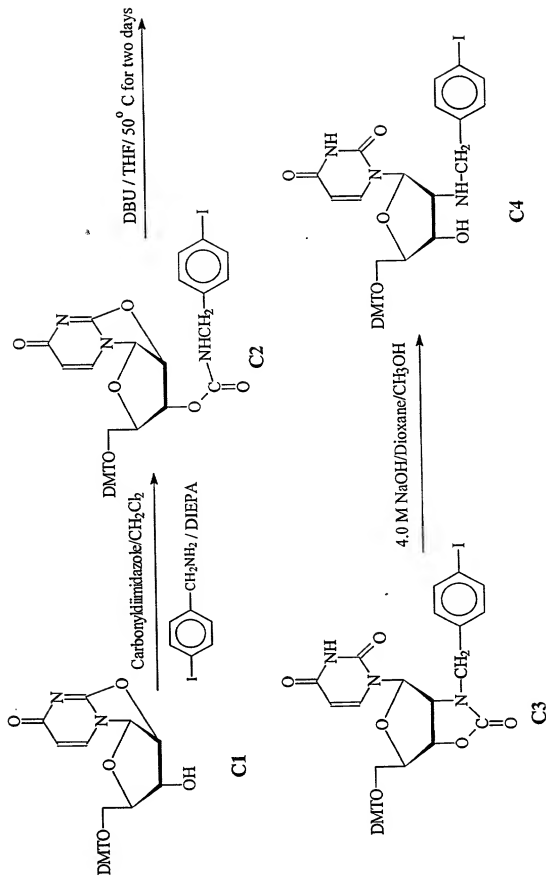


FIGURE 16

Fig 17A

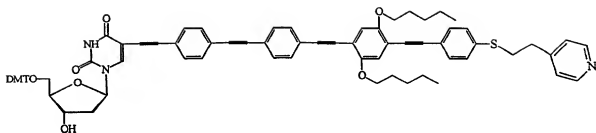


Fig 17B

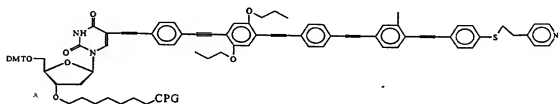


Fig 17C

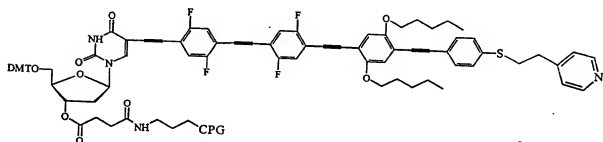
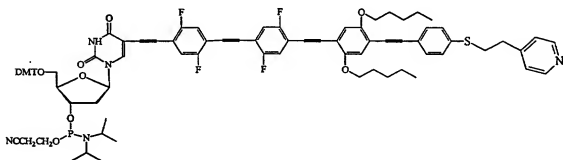


Fig 17D



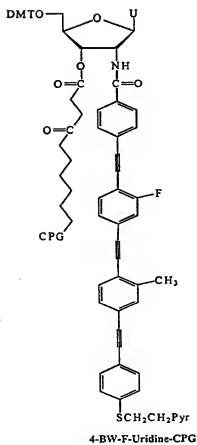


Fig 17E

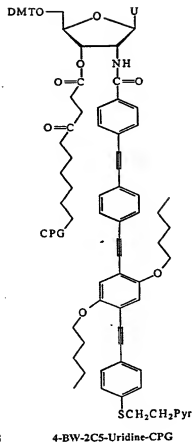


Fig 17F

Fig 17G

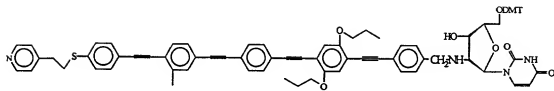
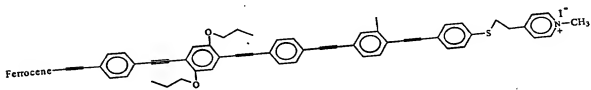


Fig 17H



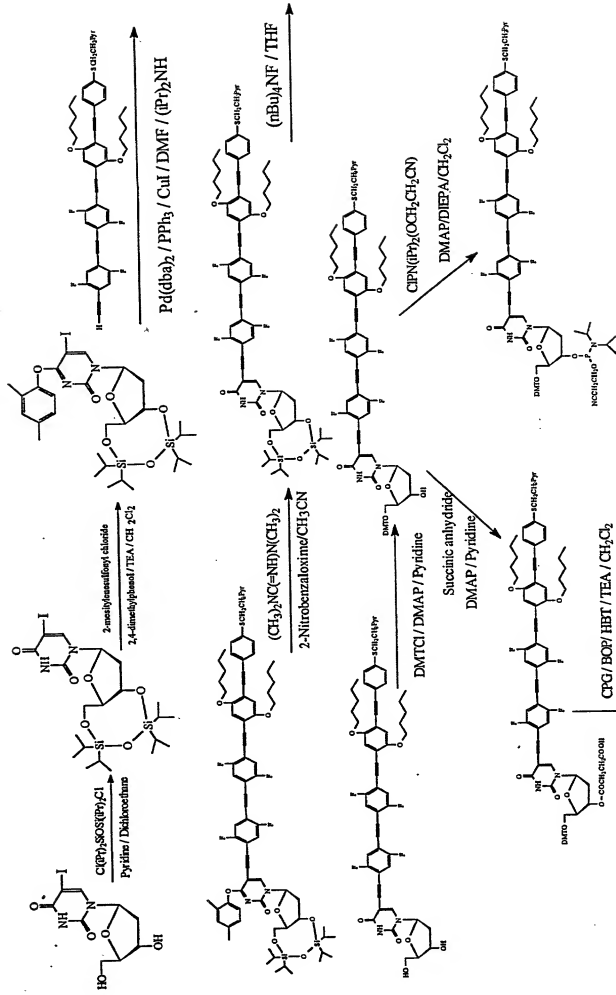


FIGURE 18

4-unit-uridine-base-attachment-CPG

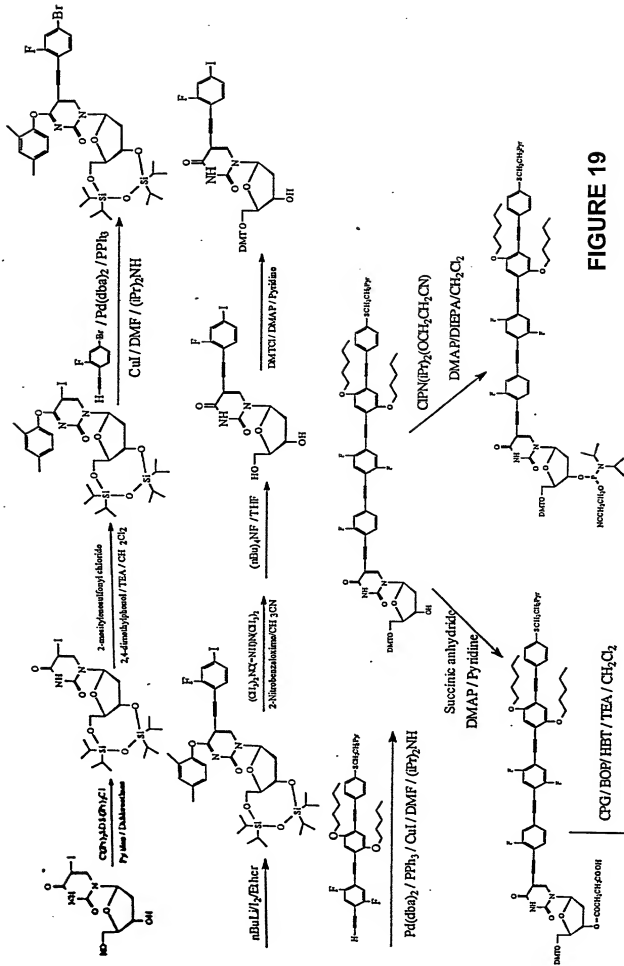


FIGURE 19

4-unit-uridine-base-attachment-CPG

Directed Assembly of Wire-DNA Synthesis



FIGURE 20

Second Generation of Sulfur Protection in the Sugar-Attached Wire-DNA Synthesis

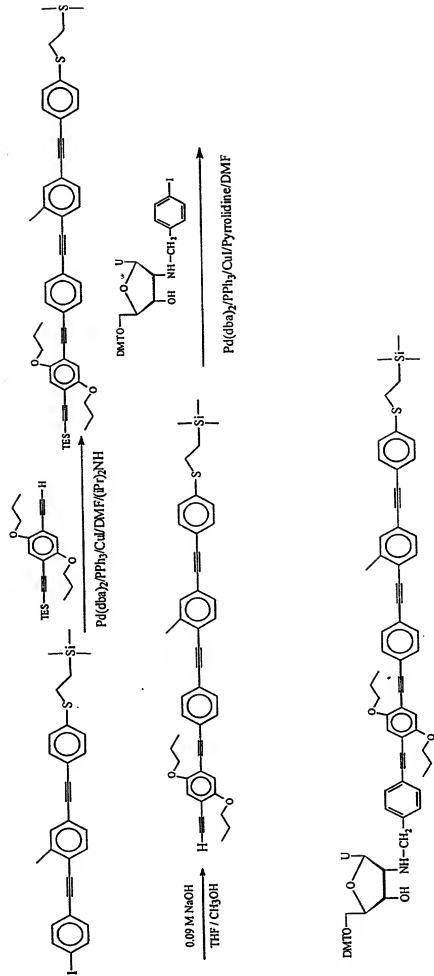


FIGURE 21

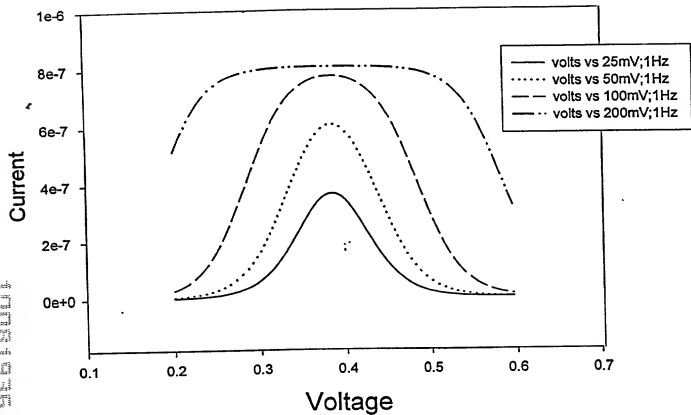


FIGURE 22A

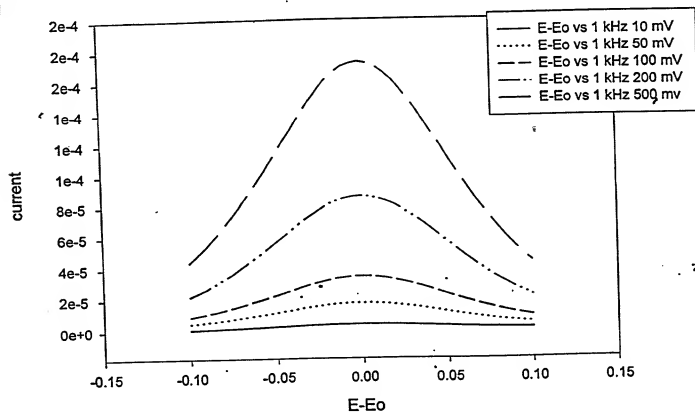


FIGURE 22B

Fc-Wire for 10 Hz

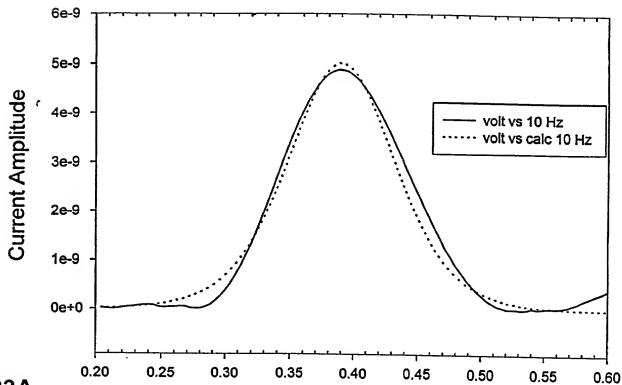


FIGURE 23A

Fc-Wire for 100 Hz

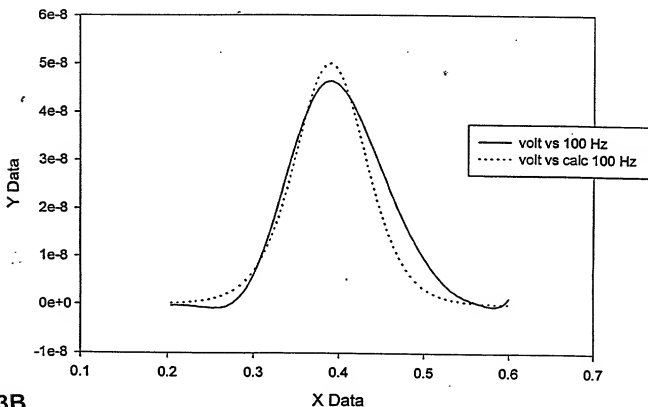


FIGURE 23B